

25. The process according to claim 24, wherein the halogenated hydrocarbon is an aliphatic alkane corresponding to the general formula  $C_wH_xX_yF_z$  (I), wherein  
w is an integer between 1 and 6,  
x is an integer between 0 and  $(2w + 1)$ ,  
y is an integer between 1 and  $(2w + 1)$ ,  
z is an integer between 0 and  $(2w + 1)$ ,  
the sum  $(x + y + z)$  has the value  $(2w + 2)$  and  
X represents chlorine or bromine.
27. The process according to claim 24, wherein the halogenated hydrocarbon is an aliphatic alkene corresponding to the general formula  $C_wH_xX_yF_z$  (I), wherein  
w is an integer between 1 and 6,  
x is an integer between 0 and  $(2w - 1)$ ,  
y is an integer between 1 and  $(2w - 1)$ ,  
z is an integer between 0 and  $(2w - 1)$ ,  
the sum  $(x + y + z)$  has the value  $2w$  and  
X represents chlorine or bromine.
28. The process according to claim 24, wherein the reaction of the halogenated hydrocarbon with the hydrogen fluoride takes place in a gas phase.
29. The process according to claim 24, wherein difluoromethane is produced by reacting hydrogen fluoride and dichloromethane.
30. The process according to claim 24, wherein 1,1,1,2-tetrafluoroethane is produced by reacting hydrogen fluoride and a compound chosen from trichloroethylene or 2-chloro-1,1,1-trifluoroethane.

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